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10/730,353	12/08/2003	Ward Thomas Brown	A01474	1784

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EXAMINER	
SHOSHO, CALLIE E	
ART UNIT	**PAPER NUMBER**
1714	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/730,353	BROWN ET AL.	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 12/29/05.

The new grounds of rejection as set forth below are necessitated by applicants' amendment and thus, the following action is final.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 7 of U.S. Patent No. 6,710,161 (Bardman et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the explanation given in paragraph 2 of the office action mailed 9/1/05.

3. Claims 1 and 7 are directed to an invention not patentably distinct from claims 1 and 7 of commonly assigned U.S. 6,710,161 (Bardman et al.). Specifically, although the conflicting claims are not identical, they are not patentably distinct in light of the explanation given in paragraph 2 of the office action mailed 9/1/05.

4. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned U.S. 6,710,161 (Bardman et al.), discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly

assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

5. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. 6,710,161 (Bardman et al.).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

For an explanation of the rejection, see paragraph 2 of the office action mailed 9/1/05.

NOTE: Applicants state on page 5 of the amendment filed 12/29/05 that they will submit an appropriate terminal disclaimer in the event the subject rejection becomes a non-provisional

rejection. In light of applicants' position, the above double patenting rejection remains against present claims 1 and 7 until such time applicants file a proper terminal disclaimer.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-2, 4-7, and 8-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Bardman et al. '051 (U.S. 6,576,051).

The rejection is adequately set forth in paragraph 10 of the office action mailed 9/1/05 and is incorporated here by reference.

With respect to newly added claims 8-14, it is further noted that the composition is suitable for use as ink (col.3, lines 20-22). Additionally, the pigments include non-white pigments such as phthalo blue (col.13, line 18). It is noted that Bardman et al. '051 disclose the amount of titanium dioxide in terms of vol.% while present claims require wt.%. However, given the broad amount of titanium dioxide disclosed, it is clear that this amount would overlap that presently claimed.

While there is no disclosure in Bardman et al. '051 that the ink is an ink jet ink as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. ink jet ink, recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art ink and further that the prior art structure which is an ink identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

8. Claims 1-4 and 6-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Dersch et al. (U.S. 6,492,451).

The rejection is adequately set forth in paragraph 11 of the office action mailed 9/1/05 and is incorporated here by reference.

9. Claims 1-4, 6-14, and 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Rosano et al. (U.S. 6,890,983).

The rejection is adequately set forth in paragraph 12 of the office action mailed 9/1/05 and is incorporated here by reference.

With respect to newly added claims 8-12, 14, and 16-17, it is further noted that the composition is suitable for use as ink (col.2, line 53). Additionally, the pigments include non-white pigments such as phthalo blue (col.10, line 32). Further, the pigment possesses average particle size of 50-500 nm or preferably, 100-300 nm (col.10, lines 42-45). It is noted that Rosano et al. disclose the amount of titanium dioxide in terms of vol.% while present claims require wt.%. However, given the broad amount of titanium dioxide disclosed, it is clear that this amount would overlap that presently claimed. Further, attention is drawn to example 2 in Table 2.2 that discloses the use of 21 wt.% titanium dioxide.

While there is no disclosure in Rosano et al. that the ink is an ink jet ink as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does

the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. ink jet ink, recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art ink and further that the prior art structure which is an ink identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

10. Claims 1-4, 6-12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Bardman et al. '161 (U.S. 6,710,161).

The rejection is adequately set forth in paragraph 13 of the office action mailed 9/1/05 and is incorporated here by reference.

With respect to newly added claims 8-12 and 14, it is further noted that the composition is suitable for use as an ink (col.16, line 6). Additionally, the pigments include non-white pigment such as phthalo blue (col.13, line 31). Attention is drawn to example 4.1 in Table 4.2 that discloses the use of 21 wt.% titanium dioxide.

While there is no disclosure in Bardman et al. '161 that the ink is an ink jet ink as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not

considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. ink jet ink, recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art ink and further that the prior art structure which is an ink identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

11. Claims 1, 8, and 10-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ma et al. (U.S. 6,247,808).

Ma et al. disclose ink jet ink comprising non-white pigment possessing average particle size of 5-300 nm and 0.1-30 wt.% polymer having first phosphorous acid groups obtained from monomer such as vinyl phosphonic acid. It is disclosed that the ratio of pigment to dispersant is 1.2-1.5 and thus, it is calculated that the ink comprises 0.12-45 wt.% pigment (col.4, lines 25-30 and 49-54, col.6, lines 42-46, and co.8, lines 12-16 and 44). It is noted that there is no disclosure in Ma et al. of water-soluble polymer having second phosphorous acid groups and thus, clearly

the ratio of equivalents of second phosphorous acid groups to equivalents of first phosphorous acid groups is less than 1.5 as presently claimed.

In light of the above, it is clear that Ma et al. anticipate the present claims.

12. Claims 1, 6, and 8-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Brown (U.S. 7,009,006).

Brown discloses composition comprising pigment, copolymer particles having first phosphorous acid groups dispersed in aqueous medium prepared from phosphonic acid monomer and multiethylenically unsaturated monomer, and water-soluble phosphorous compound having at least one second phosphorous acid group wherein the ratio of equivalents of the second phosphorous acid group to equivalents of the first phosphorous acid groups is 0-0.75. It is disclosed that the copolymer is prepared by aqueous emulsion polymerization in aqueous reaction medium having pH less than 2. It is further, disclosed that the composition is suitable as an ink (col.1, lines 38-41, col.2, lines 6-13 and 25-36, col.3, lines 21-67, col.4, lines 23-25, col.4, lines 53-57, col.5, line 42-col.6, line 16, col.6, lines 52-61, col.7, lines 18-26, col.10, line 60, and col.11, line 25).

While there is no disclosure in Brown that the ink is an ink jet ink as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that

statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. ink jet ink, recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art ink and further that the prior art structure which is an ink identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

In light of the above, it is clear that Brown anticipates the present claims.

Claim Rejections - 35 USC § 103

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

14. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bardman et al. (U.S. 6,710,161).

The disclosure with respect to Bardman et al. '161 in paragraph 10 above is incorporated here by reference.

The difference between Bardman et al. '161 and the present claimed invention is the requirement in the claims of specific amount of pigment.

Bardman et al. '161 disclose the use of 21wt.% pigment, i.e. titanium dioxide, while the present claims require 20% pigment.

It is apparent, however, that the instantly claimed amount of pigment and that taught by Bardman et al. '161 are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a "slight" difference in the ranges the court held that such a difference did not "render the claims patentable" or, alternatively, that "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties".

In light of the case law cited above and given that there is only a "slight" difference between the amount of pigment disclosed by Bardman et al. '161 and the amount disclosed in the present claims and further given the fact that no criticality is disclosed in the present invention with respect to the amount of pigment it therefore would have been obvious to one of ordinary skill in the art that the amount of pigment disclosed in the present claims is but an obvious variant of the amounts disclosed in Bardman et al. '161, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

15. Claims 1-3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 330246.

The rejection is adequately set forth in paragraph 17 of the office action mailed 9/1/05 and is incorporated here by reference.

Response to Arguments

16. Applicants' arguments with respect to Xue et al. (U.S. 6,833,401) have been fully considered but they are moot in view of the discontinuation of the use of this reference against the present claims.

17. Applicants' arguments filed 12/29/05 have been fully considered but, with the exception of arguments relating to Xue et al., they are not persuasive.

Specifically, applicants argue that there is no disclosure in Bardman et al. '051 of polymer particles prepared by aqueous emulsion polymerization of a phosphorous acid monomer at pH less than 2 as presently claimed.

Firstly, even if Bardman et al. '051 did not teach the use of polymer particles prepared by aqueous emulsion polymerization of a phosphorous acid monomer at pH less than 2, it is noted that with the exception of newly added claim 9, there is no requirement in the present claims that polymer particles are prepared by aqueous emulsion polymerization of a phosphorous acid monomer at pH less than 2. Present claims 1-8 and 10-17 require that the polymer particles are prepared by aqueous emulsion polymerization of phosphorous acid monomer at a pH less than 2 or the composition comprises a level of water-soluble polymer having second phosphorous acid groups defined by ratios of equivalents of second phosphorous acid group to equivalents of first phosphorous acid groups in the range of less than or equal to 1.5

However, it is the examiner's position that Bardman et al. '051 do teach the use of polymer particles prepared by aqueous emulsion polymerization of a phosphorous acid monomer at pH less than 2. Applicants' attention is drawn to col.11, line 14 of Bardman et al. '051 that teaches that emulsion polymerization occurs at pH less than 4, which clearly encompasses the presently claimed pH.

Previously, in order to teach ratio of first polymer to second polymer wherein each polymer has glass transition temperature as presently claimed, the examiner pointed to comparative example F in Bardman et al. '051. Applicants argue that a comparative example cannot anticipate the present claims.

However, given that the comparative example is disclosed by Bardman et al. '051 and meets the all limitations of the present claims, it is proper to utilize the comparative example against the present claims.

Applicants argue that Dersch et al. is not a relevant reference against the present claims given that there is no disclosure in Dersch et al. of preparing the polymer having first phosphorous acid groups by aqueous emulsion polymerization at pH less than 2.

While it is disclosed in Dersch et al. that the polymer is produced using emulsion polymerization, it is agreed that there is no disclosure that the emulsion polymerization is prepared at pH of less than 2. However, it is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art,

the claim is unpatentable even though the prior product was made by a different process", *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, "although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product", *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983).

Therefore, absent evidence of criticality regarding the presently claimed process and given that Dersch et al. meet the requirements of the claimed composition, Dersch et al. clearly meet the requirements of the present claims.

Applicants argue that the polymer composition of Dersch et al. is completely different than that presently claimed. However, applicants offer no evidence to support this position. Further, it is noted that "the arguments of counsel cannot take the place of evidence in the record", *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965).

Applicants argue that Rosano et al. is not a relevant reference against the present claims given that Rosano et al. do not teach pH control. Applicants argue that while Rosano et al. mention pH of 1-4, they only describe process that results in pH between 2 and 5, which is outside the scope of the present claims.

However, attention is drawn to col.8, lines 34-37 of Rosano et al. that teach that aqueous emulsion polymerization occurs at pH of 1-2. Further, it is noted that col.8, line 34 of Rosano et al. teaches that the polymerization occurs "most preferably" at pH of 1-4 which clearly overlaps the presently claimed pH. While it is agreed that there are no examples that teach preparing polymer by emulsion polymerization at pH as presently claimed, "applicant must look to the

whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others", *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967).

Applicants also argue that Rosano et al. teach the use of polyvalent metal ions in an aqueous composite particle which is outside the scope of the present invention.

However, in light of the open language of the present claims, i.e. "comprising", it is clear that the claims are open to the inclusion of additional ingredients including polyvalent metal ions.

Applicants argue that Bardman et al. '161 do not teach colorant particles with polymer particles composed of polymerized units of phosphorous acid monomers and having first phosphorous acid groups in a polymer composition as presently claimed. Applicants argue that while Bardman et al. '161 disclose that pigments and dyes are utilized in the polymer composition, Bardman et al. '161 do not disclose that the polymer composition results in improvement of increased saturation of color, less variation in efficiencies of colorant particles and lower levels of colorant particles necessary for preparation of colored coatings.

However, it is noted that col.13, lines 12-40 of Bardman et al. '161 do teach colorant particles with polymer particles composed of polymerized units of phosphorous acid monomers and having first phosphorous acid groups in a polymer composition. Additionally, it is noted that there is no requirement in the present claims that polymer composition results in improvement of increased saturation of color, less variation in efficiencies of colorant particles and lower levels of colorant particles. However, given that Bardman et al. teach composition as presently claimed,

it is clear that such composition would inherently result in improvement of increased saturation of color, less variation in efficiencies of colorant particles and lower levels of colorant particles necessary for preparation of colored coatings.

Applicants argue that there is no disclosure in EP 330246 of polymer particles prepared by aqueous emulsion polymerization of phosphorous acid monomer at pH less than 2 as presently claimed.

It is agreed that there is no disclosure in EP 330246 that emulsion polymerization of the polymer comprised of polymerized units of phosphorous acid occurs at pH less than 2. However, it is significant to note that EP 330246 disclose conducting the polymerization at pH = 2.

Thus, it is apparent, that the instantly claimed pH, i.e. "less than 2" which clearly encompasses values such as 1.99, 1.95, etc., and that taught by EP 330246, i.e. 2, are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a "slight" difference in the ranges the court held that such a difference did not "render the claims patentable" or, alternatively, that "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties".

In light of the case law cited above and given that there is only a "slight" difference between the pH disclosed by EP 330246 and the pH disclosed in the present claims, it therefore would have been obvious to one of ordinary skill in the art that the pH disclosed in the present

claims is but an obvious variant of the amounts disclosed in EP 330246, and thereby one of ordinary skill in the art would have arrived at the claimed invention.

Applicants argue that none of the example of EP 330246 utilize pigment and that one skilled in the art would know that the direct addition of pigment would cause the composition of EP 330246 to fail to cure effectively given that the addition of pigment would compromise the function of the photoinitiator.

However, applicants have offered no evidence to support their position. Further, it is significant to note that col.4, lines 45-46 of EP 330246 discloses that the dispersion can "together with the photoinitiator system" contain "customary" additives such as "pigment". Thus, it is clear that the composition of EP 330246 can in fact utilize pigments.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
3/17/06